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IBM CORP. (WIP)

c/o WALDER INTELLECTUAL PROPERTY LAW, P.C.

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Please find below and/or attached an Office communication concerning this application or proceeding.

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/718,064
Filing Date: November 20, 2003
Appellant(s): FERRI ET AL.

Francis Lammes
Reg. No. 55,353
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 9 February 2009 appealing from the Office action mailed 9 September 2008.

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The appeal brief is filed in the new format under the revised BPAI final rule before the effective date of the BPAI final rule. The Office published the BPAI final rule to amend the rules governing practice before the BPAI in *ex parte* patent appeals. See *Rules of Practice Before the Board of Patent Appeals and Interferences in Ex Parte Appeals; Final Rule*, 73 FR 32938 (June 10, 2008), 1332 *Off. Gaz. Pat. Office* 47 (July 1, 2008). However, the effective date for the BPAI final rule has been delayed. See *Rules of Practice Before the Board of Patent Appeals and Interferences in Ex Parte Appeals; Delay of Effective and Applicability Dates*, 73 FR 74972 (December 10, 2008). In the notice published on November 20, 2008, the Office indicated that the Office will not hold an appeal brief as non-compliant solely for following the new format even though it is filed before the effective date. See *Clarification of the Effective Date Provision in the Final Rule for Ex Parte Appeals*, 73 FR 70282 (November 20, 2008). Since the appeal brief is otherwise acceptable, the Office has accepted the appeal brief filed by appellant.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

Bhagavatula et al. US Patent 7,140,036

Graves et al. US Patent Application Publication 2004/0177047

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(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-3, are rejected under 35 U.S.C. 102(e) as being anticipated by Bhagavatula et al. U.S. Patent No. 7,140,036 (hereinafter '036).

Regarding claim 1, as per the first limitation **“A method of authenticating a digitally encoded product being originated by an entity having at least one authorized subject, the method including the steps of: a client system transmitting a request of authentication of the product to a server system”** is taught in '036 col. 8, lines 20-25, note “The request processing procedure 308 retrieves the information or data requested by the user 40 from the respective vendors 30a–n, and forward the same back to the user 40, e.g., via a requested information page 310”. Also note the vendors are authenticated in col. 6, lines 25-29, “With additional reference to FIG. 3, the entities or vendors 30a-n are also registered to participate in the system A. Preferably, the agent 10 administers the vendor registration process 200. The vendor registration process 200 is similar to the user registration process 100. It preferably is carried out online. In a preferred embodiments, via the server 12, the agent 10 provides”. Therefore Bhagavatula teaches authenticating encoded products and an authorized subject, i.e. authenticated user requesting authentication of the product, because they are utilizing the agent system that authenticates the vendors.

As per the second limitation **“and returning a representation of the certification to the client system”** is shown in '036 col. 8, lines 54-67, note the Examiner interprets the 'data selection page' equivalent to 'a representation of the certification';

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As per the third limitation **“the server system verifying whether the request is received from an authorized subject, and responsive to a positive verification: certifying that the product originates from the entity using sensitive information of the entity stored on the server system”** is disclosed in ‘036 col. 7, line 57 through col. 8, line 25, note Bhagavatula clearly teaches that sensitive information, i.e. ‘passwords, PINs, biometric data, and security questions’ is stored by the agent, or ‘server system’. In addition Bhagavatula teaches that the vendors are authenticated using similar methods as the user authentication. Therefore regardless of who the ‘entity’ is Bhagavatula teaches the claim limitation, ‘certifying ... using sensitive information’.

Regarding claim 2, **“wherein the step of verifying whether the request is received from an authorized subject includes: comparing an address of the client system with an indication of authorized addresses stored on the server system”** is taught in ‘036 col. 5, lines 5-14.

Regarding claim 3, **“wherein the step of verifying whether the request is received from an authorized subject includes: comparing an identifier of a user logged on the client system with an indication of authorized users stored on the server system”** is shown in ‘036 col. 8, lines 2-10.

Claims 4-8, are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhagavatula et al. U.S. Patent No. 7,140,036 (hereinafter ‘036) in view of Graves et al. U.S. Patent Application Publication No. 2004/0177047 (hereinafter ‘047).

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Regarding claim 4, **“wherein the step of certifying includes: automatically retrieving a private key of the entity stored on the server system, and digitally signing the product using the private key”** however ‘047 teaches that the PTA and private keys may be hosted in a number of locations such as a separate server, and that the authentication process is carried out without human participation (i.e. automatically), and furthermore that the private key is used to create the digital signature on pages 5-6, paragraphs 0050 and 0052-0053.

It would have been obvious to one of ordinary skill in the art at the time of the invention of a centralized identity authentication for electronic communication network taught in ‘036 to include a means to utilize private keys for authentication. One of ordinary skill in the art would have been motivated to perform such a modification because there is a need for buyer authentication in online purchases see ‘047 (page 2, paragraph 011) “Thus, there is a need for substantial buyer authentication in online commerce transactions. There is further a need for an approach to buyer authentication which is also flexible enough to easily adapt to varying levels of security for different applications and also to the adoption of new technologies. The approach preferably also does not impose significant burdens on or require extensive modification of the existing transaction processing infrastructure”.

Regarding claim 5, **“wherein the step of automatically retrieving the private key includes: calling a signing command passing a password for accessing the private key as a parameter”** is taught in ‘047 page 6, paragraph 0053.

Regarding claim 6, **“wherein the step of automatically retrieving the private key includes: calling a signing command with an option causing the import of the private key**

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from a private configuration memory area of the server system” is shown in ‘047 pages 5-6, paragraphs 0050 and 0052-0053.

Regarding claim 7, **“further including the steps of: the client system invoking a remote command on the server system, the server system verifying whether the remote command is included in a predefined list stored on the server system, the list including at least one remote command for satisfying the request of authentication, and the server system executing the remote command if included in the list”** is disclosed in ‘047 pages 5-6, paragraphs 0050 and 0052-0053.

Regarding claim 8, as per the first limitation, **“A method of authenticating a software product being originated by an entity having at least one authorized subject, the method including the steps of: a client system transmitting a request of authentication of the product to a server system”** is taught in ‘036 col. 8, line 20-31, note “The request processing procedure 308 retrieves the information or data requested by the user 40 from the respective vendors 30a–n, and forward the same back to the user 40, e.g., via a requested information page 310”. Also note the vendors are authenticated in col. 6, lines 25-29, “With additional reference to FIG. 3, the entities or vendors 30a-n are also registered to participate in the system A. Preferably, the agent 10 administers the vendor registration process 200. The vendor registration process 200 is similar to the user registration process 100. It preferably is carried out online. In a preferred embodiments, via the server 12, the agent 10 provides”. Therefore Bhagavatula teaches authenticating encoded products and an authorized subject, i.e. authenticated user requesting authentication of the product, because they are utilizing the agent system that authenticates the vendors.

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As per the second limitation **“the server system verifying whether the request is received from an authorized subject, and responsive to a positive verification:”** is disclosed in ‘036 col. 7, line 57 through col. 8, line 25;

As per the third limitation **“generating a digital signature of the product using a private key of the entity stored on the server system”** however ‘047 teaches that the PTA and private keys may be hosted in a number of locations such as a separate server, and that the authentication process is carried out without human participation (i.e. automatically), and furthermore that the private key is used to create the digital signature on pages 5-6, paragraphs 0050 and 0052-0053;

As per the fourth limitation **“and returning the digital signature to the client system, wherein the digital signature certifies that the product originates from the entity”** however ‘47 teaches that a digital record of the transaction can be shown with the digital signatures on page 6, paragraph 0056.

It would have been obvious to one of ordinary skill in the art at the time of the invention of a centralized identity authentication for electronic communication network taught in ‘036 to include a means to utilize private keys for authentication. One of ordinary skill in the art would have been motivated to perform such a modification because there is a need for buyer authentication in online purchases see ‘047 (page 2, paragraph 011) “Thus, there is a need for substantial buyer authentication in online commerce transactions. There is further a need for an approach to buyer authentication which is also flexible enough to easily adapt to varying levels of security for different applications and also to the adoption of new technologies. The approach

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preferably also does not impose significant burdens on or require extensive modification of the existing transaction processing infrastructure”.

(10) Response to Argument

I) In response to applicant’s argument, on pages 7-11 *“Nowhere in this section, or in any other section of Bhagavatula, is there a teaching of a client system transmitting a request of authentication of the product to a server system”*.

The Examiner disagrees the agent of the Bhagavatula teaches that both the user and vendor are authenticated. Users using the agent system in Bhagavatula are requesting that all vendors that they interact with through the system are authenticated. Therefore the users request for a product through the agent system is equivalent to ‘a request of authentication of the product’.

II) In response to applicant’s argument, on pages 11-14 *“Nowhere in this section, or in any other section of Bhagavatula, is there a teaching of certifying that the product originates from the entity using sensitive information of the entity stored on the server system”*.

The Examiner disagrees with the argument for multiple reasons. One as pointed out in the Final Office action the 112 rejection that was placed on the claims because the language does not clearly define the term “entity”, is removed however the Examiner interprets the term ‘entity’ to be in reference to the user. That is why the sections detailing user authentication are pointed to

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in the rejection. In addition although the claim language is not clear, who is the entity the client, the server system, or someone else (i.e. the vendor), Bhagavatula teaches that the vendor's are authenticated using similar steps as the users in col. 6, lines 25-46. Therefore it is understood that the vendors, i.e. the entity are authenticated using sensitive information.

III) In response to applicant's argument, on pages 14-15 *"Further, Bhagavatula fails to teach returning a representation of the certification to the client system"*

The Examiner disagrees with the argument as noted in the Final Office action the page returned by the agent to the user is interpreted equivalent to the representation of the certification to the client system, see col. 8, lines 32-67.

IV) In response to applicant's argument, on page 15 *"Appellants present here for the first time the following arguments. As discussed above, the data access by the user is not authenticated. That is, Bhagavatula merely authenticates a user and if the user is authenticated the user is able to access the data. The data in Bhagavatula is never authenticated. That is, in Bhagavatula only the user is ever authenticated"*.

The Examiner disagrees with the argument also as discussed above the Bhagavatula teaches that the vendor's are authenticated using similar steps as the users in col. 6, lines 25-46. Therefore it is understood the products and or services such as access to data in a user account held by databases on the vendor system see col. 1, lines 38-49 is authenticated.

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V) In response to applicant's argument, on pages 15-16 *"Furthermore, Bhagavatula does not teach or provide a sound technical reason why the needed changes to reach the presently claimed invention are necessary. Absent the Office Action point out some teaching or incentive to implement Bhagavatula such that a client system transmits a request of authentication of the product to a server system, the server system certifies that the product originates from an entity ... one in the art would not be led to modify Bhagavatula to reach the present invention"*

The Examiner disagrees with the argument Bhagavatula teaches the invention as shown above.

VI) In response to applicant's argument, on page 16-17, *"Graves does not provide for the deficiencies of Bhagavatula"*.

The Examiner disagrees with the argument there are no deficiencies in Bhagavatula to the claimed subject matter.

VI) In response to applicant's argument, on page 18-23, *"Appellants respectfully submit that Graves authentication service does not automatically retrieve a private key of the entity, from which the product originates, that is stored on the server system in order to certify that the product originates from an entity"*

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The Examiner disagrees with the argument. As noted above Bhagavatula teaches that the products are authenticated by a 'server system' i.e. agent. Graves was combined with Bhagavatula to teach that the private keys can be retrieved for an entity from multiple systems. The storing of private keys is well taught in the Graves reference in the paragraphs cited.

VII) In response to applicant's argument, on pages 23-25, "*Appellants present here for the first time the following argument. Appellants respectfully submit that simply integrating a Personal Trust Agent (PTA) and authentication and retrieving a key does not teach or provide a technical reason for automatically retrieving a private key of the entity, from which the product originates, that is stored on the server system, and digitally signing the product using the private key. Again, Graves merely authenticates whether a user is authorized to use the payment instrument. The certificate does not certify that the product originates from an entity using sensitive information of the entity stored on the server system*".

The Examiner disagrees with argument as noted above Bhagavatula teaches that the product is authenticated and Bhagavatula provides a certificate of authentication to the user from a 'server system' i.e. the agent. Graves was combined merely to teach that private keys can be stored on multiple entities and retrieved by a server system.

VIII) In response to applicant's argument, on pages 25-27 with respect to Claim 7, "*Appellants respectfully submit Bhagavatulat and Graves, taken alone or in combination, do not teach or provide a technical reason ... Appellants respectfully submit that Graves' authentication service*

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does not verify when the remote command is included in a predefined list stored on the server system ... Nowhere in the Graves reference is there a teaching or technical reason that the certificate from the user is compared to a list of certificates much less a list that includes at least one remote command for satisfying the request of authentication”.

The Examiner disagrees with argument as noted in the Final Office Action Graves teaches the limitation in paragraph 53. Claim 7 is shown below:

“the client system invoking a remote command on the server system, the server system verifying whether the remote command is included in a predefined list stored on the server system, the list including at least one remote command for satisfying the request of authentication, and the server system executing the remote command if included in the list”

The reference teaches the claimed limitation. Bhagavatula and Graves teaches authenticating entities, user and vendor. The Graves references teaches in paragraph 53, by ‘clicking button’ which is equivalent to the “invoking a remote command”. The server system executes the authentication command which attaches the digital signature.

IX) In response to applicant’s argument on pages 26-27, *“In response to the Examiner’s argument presented in the FOA, Appellants present here for the first time the following argument. Graves is directed to authenticating whether a user is authorized to use a payment instrument ... Appellants respectfully submit that Grave’s private key, of the buyer, that is used*

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for authentication and digital signature, of the buyer is not equivalent to the client system invoking a remote command on the server system verifying whether the remote command is included in a predefined list stored on the server system”.

The Examiner disagrees with argument for multiple reasons. One the limitations are clearly taught in the combination of references. Bhagavatula teaches authenticating the user as well as the vendor. Two Graves is utilized because it teaches a server system with the use of private keys for authentication purposes. In addition Graves teaches the private keys can be stored elsewhere. As well as the server system can be commanded to perform authentication functions.

X) In response to applicant’s arguments on pages 28-41 with respect to claim 8 and the arguments previously addressed.

The Examiner states there are not deficiencies, the combination teaches all the limitations presented.

XI) In response to applicant’s argument on pages 31-34, *“Moreover, neither reference teaches or provides a technical rational for incorporating the subject matter of the other reference. That is, there is no motivation offered in either reference for the alleged combination ... One of ordinary skill in the art, being presented only with Bhagavatula and Graves, and without having a prior knowledge of Appellants’ claimed invention, would not have found it*

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obvious to combine and modify Bhagavatula and Graves to arrive at Appellants' claimed invention''.

The Examiner disagree the motivation is shown in the FOA as well both references are directed to purchasing or verifying on line transactions. Therefore under the KSR ruling prior art references directed to the same subject matter have a motivation to combine.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/ELLEN TRAN/

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